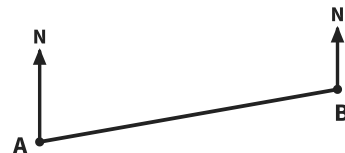


1 Map scales

- a) A map has a scale of 1 : 25 000. Two farms are 6.8 cm apart on the map. How far apart are they in real life, in km?
- b) A footpath is 4.2 km long. Will it fit on a map with a scale of 1 : 50 000 printed on a page 8 cm wide? Show how you know.

2 Map scales: measuring

- On this map, 1 cm represents 2 km.
- a) Measure AB. Work out the real distance.
- b) Measure the bearing of B from A. Work out the bearing of A from B.



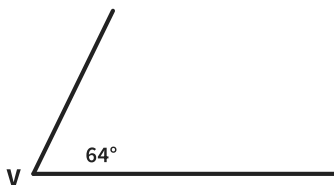
3 Perpendicular bisector

- a) Construct the perpendicular bisector of PQ. Leave your arcs.
- b) R is the point on your line 5 cm from P. How far is R from Q? Explain.



4 Angle bisector

- a) Construct the bisector of angle V. Leave your arcs.
- b) Now construct an angle of 16° without a protractor.



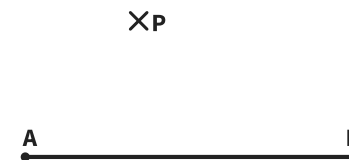
Constructions and loci

revision mat

Higher A

5 Perpendicular through a point

- a) Construct the perpendicular from P to the line AB. Leave your arcs.
- b) Measure the shortest distance from P to AB. Find the area of triangle ABP.



6 Constructing triangles

- a) Construct triangle ABC with $AB = 4.5$ cm, $AC = 3$ cm and $BC = 2$ cm. Leave your arcs.
- b) Measure angle BAC.



7 Loci: a fixed distance

- a) Garden ABCD is drawn 1 cm to 2 m. A lamp at L lights up to 3 m away. Draw the edge of the lit region.
- b) Shade where the garden is lit and within 2 m of DC.



8 Loci: equal distances

- A pond must be nearer S than T, and nearer AD than AB.
- a) Construct the locus equidistant from S and T.
- b) Shade where the pond can go.

